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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/526,034

10/28/2005

Jonathan Burr

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EXAMINER

LONG, FONYA M

ART UNIT

PAPER NUMBER

3689

MAIL DATE

DELIVERY MODE

03/31/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/526,034	BURR ET AL.	
	Examiner	Art Unit	
	FONYA LONG	3689	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 81-105 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/20/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is a first Office Action Non-Final rejection on the merits. Preliminary Amendment filed October 29, 2005 has been acknowledged. Claims 1-81 have been canceled. Claims 81-105 are currently pending and have been considered below.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 81-85, and 98-102 are rejected under 35 U.S.C. 102(e) as being anticipated by Lapidot (6,341,255).

As per Claims 81 and 98, Lapidot discloses a method and system for providing traffic information, the method comprising:

for each segment of a route between an origin point and a destination point, performing a time-dependent journey planning calculation, based on a time during which a vehicle is predicted to be traveling through the segment, to produce a segment result (Claim 1, discloses calculating segments of a recommended route of travel using a starting point, an intermediate position, and a destination point based on a

predetermined time interval for travel (i.e. time during which a vehicle is predicted to be traveling) and a measured vehicle velocity for the vehicle);

forming at least one route result, the at least one route result being formed based on a plurality of the segment results (Claim 1, discloses forming a route composed of a plurality of route segments);

storing the at least one route result in a digital storage means (Claim 1, discloses storing route information in a route selecting computer); and

accessing the rapid access means for use in responding to a user request for traffic information for a journey between the origin point and the destination point (Claim 31, via accumulating up-to-date traffic information for a route (between the origin point and the destination point)).

As per Claims 82 and 99, Lapidot discloses determining a segment duration for traversing the segment based on a predicted vehicle speed for the segment at the time during which the vehicle is predicted to be traveling through the segment (Col. 6, Lines 27-65, discloses performing a time-dependent calculation for a route (Claim 1) which consists of a plurality of segments based on current and anticipated average traffic speeds (i.e. vehicle speeds) on candidate roads and roads segments).

As per Claims 83 and 100, Lapidot discloses summing a plurality of segment durations to produce an overall route duration (Fig. 6 discloses providing an estimated arrival time (i.e. overall route duration) based on a given route (Claim 1) which consists of a plurality of segments).

As per Claims 84 and 101, Lapidot discloses determining a predicted vehicle speed for traversing the segment based on the time during which the vehicle is predicted to be traveling through the segment (Col. 6, Lines 27-49, discloses determining a current and anticipated (i.e. predicted) average traffic speeds for the segments included in the route).

As per Claims 85 and 102, Lapidot discloses averaging a plurality of predicted vehicle speeds, each corresponding to a segment; to produce an overall predicted route speed (Col. 5, Lines 40-47, discloses averaging traffic velocity (i.e. vehicle speed) in each road segment).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 86 and 103 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lapidot (6,341,255) in view of Sroub et al. (US 2003/0135304).

Lapidot discloses the claimed invention as applied to Claim 81, above. However, Lapidot fails to explicitly disclose the time-dependent journey planning calculation being based on a time of day and a day of the week.

Sroub et al. discloses a system for computing a trip route with the concept of the time-dependent journey planning calculation being based on a time of day and a day of

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the week during which the vehicle is predicted to be traveling through the segment ([0039] via determining routing information based on the time of day and the day of the week).

Therefore, from the teaching of Sroub et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method for providing route guidance to vehicles of Lapidot to include the time-dependent journey planning calculation being based on a time of day and a day of the week as taught by Sroub et al. in order to provide an accurate duration time in reference to the planned route.

5. Claims 87 and 104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lapidot (6,341,255) in view of Sroub et al. (US 2003/0135304) and in further view of Ran (6,317,686) and Examiner's Official Notice.

The Lapidot and Sroub et al. discloses the claimed invention as applied to Claim 86, above. However, the combination fails to explicitly disclose the day of the week being selected from a group comprising Bank Holiday, Day before Bank Holiday, Day after Bank Holiday, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday.

Ran discloses a method for predicting travel times with the concept of the day of the week being selected from a group comprising a Bank Holiday (Col. 5, Lines 31-43, via determining travel time based on holidays such as Memorial Day or the Fourth of July).

Therefore, from the teaching of Ran, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Lapidot and Sroub et al. combination to include the day of the week being selected from a group comprising a Bank Holiday as taught by Sroub et al. in order to provide an accurate travel time based on various traffic patterns in relation to holidays.

The examiner takes Official Notice that it is old and well known in the art that the days of a week are Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday, wherein a day before a Bank Holiday and a Day after a Bank Holiday would be considered either a Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, or Saturday.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Lapidot, Sroub et al., and Ran combination to include the days of a week as being Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday in order to provide a travel time based on various traffic patterns such as weekend traffic patterns versus weekday traffic patterns.

6. Claims 88 and 105 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lapidot (6,341,255) in view of Braegas (5,465,088).

Lapidot discloses the claimed invention as applied to Claim 81, above. However, Lapidot fails to explicitly disclose a look-up table.

Braegas discloses a method for providing a route to a drive with the concept of a look-up table (Col. 5, Lines 46-53, discloses a look-up table in relation to a starting point and a destination point).

Therefore, from the teaching of Braegas, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method for providing route guidance to vehicles of Lapidot to include a look-up table as taught by Braegas in order to the user with easy access to stored data in relation to traffic information.

7. Claims 89 and 90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lapidot (6,341,255) in view of Lapidot et al. (6,490,519).

As per Claim 89, Lapidot discloses the claimed invention as applied to Claim 81, above. However, Lapidot fails to explicitly disclose receiving real time data relating to real time vehicle location; and creating a matrix of vehicle speeds.

Lapidot et al. discloses a method for traffic monitoring and route guidance with the concept of receiving real time data relating to real time vehicle location from a plurality of vehicle-bound probes (Claim 1, discloses receiving a current location information from each of the at least one selected vehicle moving in the traffic stream); and creating a matrix (which has been defined as an arrangement of connected things: an arrangement of parts that shows how they are interconnected by *Encarta*® *World English Dictionary [North American Edition]* © & (P) 2007 Microsoft Corporation. All rights reserved) of vehicle speeds relative to at least a plurality of time of day divisions and a plurality of routes, based on the real time vehicle location data (Fig. 11k; Col. 29, Lines 10-17, discloses a matrix of vehicle speeds (i.e. speed column in Fig. 11k) in relation to a plurality of time of day (i.e. time column in Fig. 11k) for a plurality of real

time current vehicle locations for a plurality of routes (i.e. segment ID column in Fig. 11k)).

Therefore, from the teaching of Lapidot et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method for providing route guidance to vehicles of Lapidot to include receiving real time data relating to real time vehicle location and creating a matrix of vehicle speeds as taught by Lapidot et al. in order to accurate traffic information.

As per Claim 90, Lapidot discloses the plurality of vehicle-bound probes including at least one mobile telephone (Col. 6, Lines 1-7, discloses vehicle location information (such as GPS information) being derived by a mobile communication device such as mobile telephones).

8. Claims 91, and 95-97 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lapidot (6,341,255) in view of Lapidot et al. (6,490,519) and in further view of Sroub et al. (US 2003/0135304).

As per Claim 91, Lapidot et al. discloses a matrix of routes relative to at least a plurality of time of day divisions (Fig. 11k, via Time column) and a plurality of routes (Fig. 11k, via Segment ID column), based on the matrix of vehicle speeds (Fig. 11k, via Speed column). However, the Lapidot and Lapidot et al. combination fails to explicitly disclose recommending the most economic routes.

Sroub et al. discloses a system for computing a trip route with the concept of recommending the most economic routes (Claim 4, discloses producing one or more candidate routes that minimize one or more costs associated with traveling a candidate

route based, at least in part, on data stored in the experience based travel database ([0039] which contains a plurality of time of day, a plurality of routes, and vehicle speeds (i.e. fast driver or slow driver)).

Therefore, from the teaching of Sroub et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Lapidot and Lapidot et al. combination to include recommending the most economic routes as taught by Sroub et al. in order to provide a means for saving the user money when traveling.

As per Claim 95, the Lapidot and Lapidot et al. combination discloses the claimed invention as applied to Claim 91, above. However, the combination fails to explicitly disclose identifying real time traffic congestion; and determining alternative routes.

Sroub et al. discloses a system for computing a trip route with the concept of identifying, in real time, an area of traffic congestion between the origin point and the destination point ([0055] via receiving real time traffic data in reference to the selected route); and determining an alternative, second matrix of recommended most economic routes based on the identified area of traffic congestion ([0056] discloses determining new routes based on modeling that integrates information stored in the historical database with the real time data (i.e. real time traffic data)).

Therefore, from the teaching of Sroub et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Lapidot and Lapidot et al. combination to include identifying real time traffic congestions; and

determining alternative routes as taught by Sroub et al. in order to save time and money for the user when traveling by avoiding traffic congested areas.

As per Claim 96, the Lapidot and Lapidot et al. combination discloses the claimed invention as applied to Claim 95, above. However, the combination fails to explicitly disclose the traffic congestion being identified using a database of traffic patterns.

Sroub et al. discloses a system for computing a trip route with the concept of the traffic congestion being identified using a database of traffic patterns ([0056] via modeling that integrates information stored in the historical database with the real time data (i.e. real time traffic data)).

Therefore, from the teaching of Sroub et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Lapidot and Lapidot et al. combination to include the traffic congestion being identified using a database of traffic patterns as taught by Sroub et al. in order to save time and money for the user when traveling by avoiding traffic congested areas.

As per Claim 97, Lapidot discloses the claimed invention as applied to Claim 95, above. However, Lapidot fails to explicitly disclose determining whether real time vehicle location data corresponds to a predetermined level of variance of vehicle speeds.

Lapidot et al. discloses a method for traffic monitoring and route guidance with the concept of determining whether real time vehicle location data from a plurality of vehicle-bound probes correspond to a predetermined level of variance from historic real

time vehicle speeds (Col. 5, Lines 31-35, discloses reporting information to the traveler only if the travel information (i.e. vehicle speed or travel time) deviates, in accordance, with a predetermined deviation criteria (i.e. predetermined level of variance of vehicle speeds) from a known travel time value. Col. 10, Lines 30-34, discloses the deviation criterion includes deeming as a travel time deviation, an increase in travel time over a route (i.e. a change in vehicle speed) which affects the relative attractiveness of the route relative to at least one alternative route.).

Therefore, from the teaching of Lapidot et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method for providing route guidance to vehicles of Lapidot to include determining whether real time vehicle location data corresponds to a predetermined level of variance of vehicle speeds as taught by Lapidot et al. in order to determine whether a selected route should be updated in order to provide the most economical route for the user.

9. Claim 92 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lapidot (6,341,255) in view of Lapidot et al. (6,490,519) and in further view of Sroub et al. (US 2003/0135304) and *Grubbs Test for Outliers* (October 4, 2000).

Lapidot discloses analyzing vehicle speeds related to unforecastable events (Col. 6, Lines 50-65, discloses determining anticipated average speeds based on time-dependent characteristics such as accidents). However, the Lapidot, Lapidot et al., and Sroub et al. combination fails to explicitly disclose removing outlier vehicle speeds and vehicle speeds related to unforecastable events from the matrix of vehicle speeds using statistical analysis.

Grubbs Test for Outliers discloses a method for detecting outliers in a data set with the concept of removing outlier vehicle speeds and vehicle speeds related to unforecastable events from the matrix of vehicle speeds using statistical analysis (discloses outliers being expunged from a dataset so that no outliers exist in the dataset).

Therefore, from the teaching of *Grubbs Test for Outliers*, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Lapidot, Lapidot et al., and Sroub et al. combination to include removing outlier vehicle speeds and vehicle speeds related to unforecastable events from the matrix of vehicle speeds using statistical analysis as taught by *Grubbs Test for Outliers* in order to develop an accurate approximation of travel time for a given route.

10. Claims 93 and 94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lapidot (6,341,255) in view of Lapidot et al. (6,490,519) and in further view of Sroub et al. (US 2003/0135304) and Ran (6,317,686).

As per Claim 93, Lapidot discloses a plurality of route matrix elements (Claim 1, discloses a plurality of route segments), wherein each route matrix element corresponds to a pairing of an origin point with a destination point (Claim 1, discloses each segment corresponding with a current location (i.e. origin point) and a destination location). However, the Lapidot, Lapidot et al., and Sroub et al. combination fails to explicitly disclose a route string, a shortest distance corresponding to the route string, a time corresponding to the route string, and a cost corresponding to the route string.

Ran discloses a method for providing travel time with the concept of a route string (Fig. 10A, discloses a route string (i.e., starting and destination location), a shortest distance corresponding to the route string (Fig. 10B, discloses shortest distance for the route string via entering desired route selection criteria as shortest distance), a time corresponding to the route string (Fig. 10B, discloses the estimated travel time for a route string), and a cost corresponding to the route string (Fig. 9, discloses the total cost for a route string).

Therefore, from the teaching of Ran, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Lapidot, Lapidot et al., and Sroub et al. combination to include a route string, a shortest distance corresponding to the route string, a time corresponding to the route string, and a cost corresponding to the route string as taught by Ran in order to provide the user with information relating to the time and cost for a given route.

As per Claim 94, The Lapidot and Lapidot et al. combination discloses the claimed invention as applied to Claim 93, above. However, the combination fails to explicitly disclose a plurality of possible vehicle types.

Sroub et al. discloses a system for computing a trip route with the concept of a plurality of possible vehicle types ([0039] discloses entering vehicle types (i.e., cars, trucks, buses) as profile information).

Therefore, from the teaching of Sroub et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Lapidot and Lapidot et al. combination to include a plurality of possible vehicle types as taught by

Sroub et al. in order to aid in determining the cost for traveling a selected route based on the vehicle type.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ito et al. (6,128,571) discloses a vehicle navigation system.

Mandhyan et al. (5,539,645) discloses a traffic monitoring system.

Yang et al. (7,155,376) discloses a system and method for geographically based analysis of traffic being carried over a wide scale traffic network.

DeKock et al. (6,466,862) discloses a system for providing traffic information to a plurality of mobile users connected to a network.

Hirano (5,839, 086) discloses a system for providing and displaying recommended navigation information in a vehicle.

Gueziec (6,989,765) discloses a system which provides real time information to a traveler.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FONYA LONG whose telephone number is (571)270-5096. The examiner can normally be reached on Mon-Thur 7:30am-6:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janice Mooneyham can be reached on (571) 272-6805. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FML

/Janice A. Mooneyham/
Supervisory Patent Examiner, Art Unit 3689

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